CHAPTER 3

INSPECTION

3.1 WORK RECORD

Record the results of all tests and findings clearly and accurately on a laboratory ticket or similar form to the nearest tenth percent. This will be used as the source of the information reported on the inspection certificate.

3.2 REPRESENTATIVE PORTION

A part of the representative sample separated from the original sample by means of an FGIS approved device.

3.3 FILE SAMPLE

a. A file sample is a representative portion of a lot or sample. File samples may be used in conjunction with the work sample, when needed. They may also be used for monitoring and appeal inspection purposes.

b. Retain file samples in appropriate containers for a minimum of fifteen calendar days. After maintaining for the required period, dispose of the file samples in accordance with established procedures.

3.4 BASIS OF DETERMINATION

Determine all factors on the basis of the sample as a whole.

3.5 COMPOSITING AND SUBDIVIDING SAMPLES

a. Review the information on the sample ticket to determine if the number of core samples taken corresponds to the number of core samples required.

NOTE: Do not perform compositing, subdividing, or analytical work until all sampling of the lot has been completed.

b. Composite and subdivide the core samples into representative portions for analysis and a file sample as follows:

(1) Carefully remove each sample from its container.

(2) Loosen each individual core sample, and pour it onto a divider pan.

(3) Examine each sample on the divider pan for any unusual conditions that might affect the analysis. Record any unusual conditions, such as the presence of heavy vine or other objectionable material. Stems over 1 inch long should be cut or broken into smaller pieces (approximately ½inch) and mixed through the sample.

(4) Spread the individual core samples evenly in the divider pan and then drop them through the divider in a swaying fashion so it passes freely and uniformly. This permits an even flow of hop to fall through the divider opening so that the sample is divided evenly.

(5) Examine and divide all the samples in the lot in the aforementioned manner. Discard all remaining sample material.

(6) Sub-divide the sample further to obtain:

(a) Approximately 90 grams for leaf and stem analysis,

(b) Approximately 45 grams for seed analysis, and

(c) Approximately 200 grams for a file sample.

(7) Identify the file sample and store it in a clean, dry place for a minimum of 15 days. Identify the portions to be used for the leaf and stem determination and the seed determination with tags showing the lot identity.

3.6 LEAF AND STEM ANALYSIS

a. Weigh the representative portion using an FGIS approved scale. Record the weight on the work record.

(1) Place 20 to 30 grams of the representative portion on top of a 1/8-inch wire-mesh sieve with a bottom pan.

NOTE: The sieve may be sprayed with silicone-type polish to prevent the buildup of lupulin or other resinous material.

(2) Sieve the portion (either by hand or by a mechanical sampler) until the material is sufficiently separated by particle size, but do not over-sieve. Excessive sieving can degrade the integrity of the portion and bias the final results. Set aside the material remaining on top of the 1/8-inch wire-mesh sieve for handpicking. This material will consist chiefly of whole hop cones and large leaf particles.

(3) Discard all of the material remaining in the bottom pan.

(4) Repeat the sieving procedure for the remainder of the representative portion.

NOTE: Occasionally wash the sieve in alcohol or a suitable solvent to free it from accumulation of resinous material.

b. Handpick the material remaining on top of the 1/8-inch wire-mesh sieve.

(1) All hop stems not exceeding 1 inch in length, which bear or have borne the individual cones, and all seeds, strigs, and lupulin shall be considered as hops.

(2) All leaf stems (regardless of length), all hop stems in excess of 1 inch in length, all leaf material, and all vine material shall be considered as leaf and stem material.

c. Weigh the "handpicked" separation to the nearest hundredth of a gram using an FGIS approved precision class scale.

(1) Compute the percent of leaf and stem on the basis of weight of the original portion.

(2) Record the results to the nearest hundredth of a percent on the work record.

(3) State the results on the official certificate in terms of whole percent, with a fraction of a percent disregarded.

For example:

0.00 to 0.99 percent is recorded as 0 percent;
1.00 to 1.99 percent is recorded as 1.0 percent;
2.00 to 2.99 percent is recorded as 2.0 percent, etc.

3.7 SEED ANALYSIS

a. Weigh the representative portion using an FGIS approved scale. Record the weight on the work record.

b. Drive off the sticky resinous material by packing the portion loosely into a metal container with a cover and place in an air oven at approximately 118 degrees Centigrade for approximately 2 hours.

c. Free the seeds from the hops by folding the dried sample in a coarse, mesh, cotton cloth and rub vigorously, or thresh mechanically.

(1) Separate the finely broken, dried hop material from the hop seeds by using a small clipper mill or a 4 x 20 wire-mesh sieve.

(2) Separate the strigs remaining with the seeds by the use of an inclined handtray lined with sandpaper, or by other satisfactory devices which hold the strigs and other material and permit the seeds to roll off.

d. Weigh the seeds to the nearest hundredth of a gram using an FGIS approved precision class scale.

(1) Compute the percent of seed on the basis of weight of the original portion.

(2) Record the results to the nearest hundredth of a percent on the work record.

(3) State the results on the official certificate in terms of whole percent with a fraction of a percent disregarded. See example in 3.6 "Leaf and Stem Analysis", section c.(3).

3.8 MONITORING HOP INSPECTIONS

a. FGIS field office managers (FOMs) and Federal/State managers (F/SMs) shall be responsible for monitoring the performance of all hop inspections performed within their assigned circuit.

b. As directed by the FOM or F/SM, hop inspections may be monitored either by onsite sample reviews and/or by sample exchanges. To facilitate sample exchanges:

(1) Official personnel at hop inspection service points shall, at the request of the FGIS field office or Federal-State office, randomly select hop file samples.

(2) File samples selected for monitoring, along with their completed work records, shall be promptly mailed to the responsible FGIS field office or Federal-State office.

(3) Upon receipt, FGIS field office or Federal-State personnel shall inspect each monitoring sample using the prescribed portion sizes, but without previous knowledge of the original inspection results. The monitoring inspection results for each factor determination shall be compared with the original inspection result and significant differences noted.

c. When a monitoring inspection factor result differs significantly from an original inspection fact or result, issue a notice of correction (form FGIS-301, "Description of Performance" or form FGIS-153, "Corrective Action Report") and direct appropriate follow-up action.